

Work Order ID 121239

121239

Page 1

June-18-14 1:58:26 PM

Item ID: D3965-4 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Bearing, Spherical
 Start Date: 6/18/14 Start Qty: 20.00 ***20*** Cust Item ID:
 Required Date: 6/18/14 Req'd Qty: 20.00 ***20*** Customer:
 Reference:

Approvals: Process Plan: MJS Date: 14-06-18 Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D3965	B

100 0.00
100
 Purchasing
 Purchasing
 Memo
 PURCHASING
 Issue P/O: 24713
 Purchase Part Number: 63215K52
 Possible Supplier: McMaster
 Material release note is required
 0.00
CL 14/06/20 20

110 0.00
110
 Packaging
 Packaging
 Memo
 0.00
16/4/24 (20)

Receive & Inspect for Damage & Mat'l Certs

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
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Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function	<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other
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Work Order ID 121239

121239

Page 2

June-18-14 1:58:26 PM

Item ID: D3965-4

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Bearing, Spherical

Start Date: 6/18/14 Start Qty: 20.00

20

Cust Item ID:

Required Date: 6/18/14 Req'd Qty: 20.00

20

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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120

QC6- Inspect dimensions to drawing

0.00

120
QC
Quality Control
Memo
0.00 14/6/23

23

130

Identify as per dwg & Stock Location: 51073 0.00

0.00

130

Packaging

Memo

0.00

Packaging

20X

DAS
28
9-89

JUN 26 2014

140

QC21- Final Inspection - Work Order Release 0.00

0.00

140

QC

Memo

0.00

Quality Control

MLJ 14-06-23

MF
14-6-26

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

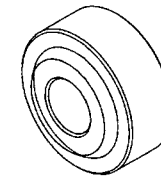
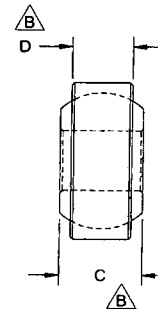
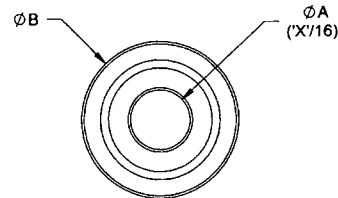
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SPECIFICATION CONTROL DRAWING



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 121239 M15
1406-18

D3965-X BEARING, SPHERICAL

WHERE 'X' IS I.D. IN 1/16" OF AN INCH
EG Ø 1/4" (4/16") I.D. BEARING = D3965-4

DART P/N	SUPPLIER	SUPPLIER P/N	A	B	C	D	STATIC RADIAL LOAD CAP. lbs
D3965-3	McMASTER-CARR	63215K31	0.188	0.563	0.281	.219	3,975
D3965-4	McMASTER-CARR	63215K52	0.250	0.656	0.344	0.250	6,040
D3965-5	McMASTER-CARR	63215K53	0.313	0.750	0.375	0.281	8,750
D3965-6	McMASTER-CARR	63215K34	0.375	0.813	0.406	0.313	10,540

RELEASED
2012-03-02

NOTES:

- 1) MATERIAL: 440C STAINLESS STEEL WITH PTFE LINER
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: N/A

B	CORRECT LETTER DESIGNATED C & D (ZN C4-1) PER PAR11-151	RF	12.01.10
A	NEW ISSUE	RF	09.07.09
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	10	DRAWING NO.	REV. B
MFG. APPR.	E	D3965	SHEET 1 OF 1
APPROVED	10	TITLE	SCALE
DE APPR.	10	BEARING, SPHERICAL	NTS
DATE	12.01.10	<small>COPYRIGHT © 2005 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO24713**

Purchase Order Date 6/20/2014

PO Print Date 6/20/2014

Page Number 1 of 4

Order From :

MCMaster-CARR SUPPLY CO,
P.O. BOX 7690
CHICAGO, IL 60680-7690
US

VU-MCM001

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

PAID

Contact Name		Buyer	Chantal Lavoie
Vendor Phone	330 995 5500	Customer POID	
		Customer Tax #	10127-2607
Ship To Contact		Terms	Net 10
Ship To Phone		Currency	USD
Ship Via:	FedEx PI collect	FOB	FCA - (Free Carrier)
Ship Acct:			

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	63215K34	Bearing	6/24/2014 Yes 6/24/2014		20.00 Each	\$17.24	\$344.80
AS PER DWG D2611 REV. C B121166							
Line Total:							\$344.80
2	63215K52	Bearing Spherical	6/24/2014 Yes 6/24/2014		20.00 Each	\$15.62	\$312.40
AS PER DWG D3965 REV. B B121239							
Line Total:							\$312.40
3	91525A120	washer	6/24/2014 Yes 6/24/2014		100.00 Each	\$0.27	\$26.64
AS PER DWG D3456 REV.A B121045							

Note:

6/20/2014



200 Aurora Industrial Pkwy
Aurora OH 44202-8087
330-995-5500
cle.sales@mcmaster.com

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury ON K6A 1K7
Canada

Purchase Order
PO24713

Page 1 of 2

Order Placed By
Chantal Lavoie

06/20/2014

McMaster-Carr Number
5397315-01

Line	Description	Ordered	Shipped
1	63215K34 Stainless Steel Ball Joint Swivel Bearing, PTFE Lined, 3/8" ID, 13/16" OD, 13/32" Ball Thick Your Part Number: N/A	20 Each	20
	Unit Price: \$17.24 Extended Price: \$344.80		
2	63215K52 Stainless Steel Ball Joint Swivel Bearing, PTFE Lined, 1/4" ID, 21/32" OD, 11/32" Ball Thick Your Part Number: N/A	20 Each	20
	Unit Price: \$15.62 Extended Price: \$312.40		
3	91525A120 Type 316 Stainless Steel Large-Diameter Flat Washer, 1/4" Screw Size, 1" OD, .04"-.06" Thick, Packs of 25 Your Part Number: N/A	4 Packs	4
	Unit Price: \$6.66 Extended Price: \$26.64		
4	9928K53 Impact-Resistant UHMW Polyethylene U-Channel, 1" Base X 3/4" Legs, 1/4" Thick Your Part Number: N/A	16 Feet	16
	Unit Price: \$2.28 Extended Price: \$36.48		

LNS A			
3 - 482 - 03	07 - 38	K34	20 EA
3 - 482 - 01	08 - 56	K52	20 EA
2 - 702			
5 - 23			

Dart Aerospace Ltd

EXP
INV

Fr



34
8 li

FW1WBf
06/20/20
10:43/11
264
Cycle 34

1141163375965

